
February – 2008

OpenCourseWare, Global Access and the Right to Education: Real access or marketing ploy?

Henk Huijser, Tas Bedford, and David Bull
University of Southern Queensland, Australia

Abstract

This paper explores the potential opportunities that OpenCourseWare (OCW) offers in providing wider access to tertiary education, based on the ideal of ‘the right to education’. It first discusses the wider implications of OCW, and its underlying philosophy, before using a case study of a tertiary preparation program (TPP) at the University of Southern Queensland (USQ) to draw out the issues involved in offering a program that is created in a particular national and social context on a global scale. This paper draws specific attention to the digital divide, its effects in national and global contexts, and the particular obstacles this presents with regards to OCW. This paper argues that OCW provides many opportunities, both in terms of access to education and in terms of student recruitment and marketing for universities. To take full advantage of those opportunities, however, requires a concerted effort on the part of tertiary education institutions, and it requires a vision that is fundamentally informed by, and committed to, the principle of ‘the right to education’.

Keywords: OpenCourseWare (OCW); the right to education; digital divide; tertiary preparation programs

***Give a man [sic] a fish and you feed him for a day.
Teach a man to fish and you feed him for a lifetime (Chinese proverb)***

Introduction

Article 26 of the Universal Declaration of Human Rights states that “everyone has the right to education” (United Nations, *n.d.*). More specifically with regards to higher education, it states that “higher education shall be equally accessible to all on the basis of merit”. While Article 26 is the only Article that is specifically focused on education, it is central to many others, especially Article 23: “Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment”. Based on this recognition, we specifically focus on access to higher education ‘on the basis of merit’ in this paper. Showing ‘merit’ requires access to, and mastery of, the tools of education that are acquired at an earlier stage in an individual’s education. On a global scale, social, economic, and cultural circumstances have significant effects upon an individual’s ability to acquire these tools and, in turn, on

educational outcomes. A basic question underlying the right to education then becomes one of how to create equal access to the tools of education, and thus the opportunity to show merit.

The Tertiary Preparation Program (TPP) at the University of Southern Queensland (USQ) offers the largest tertiary preparation program by distance in Australia, and specifically targets those who struggle to 'show merit' for one reason or another, often as a result of barriers such as socio-economic circumstances or geographical isolation. Most recently, plans have been put in place, with the help of open source software, to make the program and its course materials globally accessible to 'everyone', or at least those with access to a computer and the Web. This makes USQ the first Australian university to offer programs in line with the OpenCourseWare (OCW) philosophy, of which Massachusetts Institute of Technology's (MIT) OpenCourseWare program is probably the most well known example. The OCW model is fundamentally about creating wider access to educational materials, but there are other issues and agendas involved, driven by the forces of a competitive global marketplace for education. OCW creates potentially beneficial marketing opportunities for universities and, by extension, a potential supply of future fee-paying students. These students could potentially enroll in USQ's undergraduate courses on successful completion of the TPP. What does this market orientation mean, however, for those who have arguably the greatest need for this courseware, but the least opportunity to use it? In the case of TPP, this includes anyone without Internet access, such as prisoners. OCW undoubtedly offers potential benefits from the perspective of institutional market position, but to what extent does this 'market orientation' get in the way of a more fundamental concern with the right to education on a global scale?

This paper explores the question of the competing interests of the 'right to education' and the market orientation of contemporary universities with a specific focus on the TPP, and in the process it addresses a series of questions related to the curriculum and pedagogy of a global cohort of students. For example, what are the pedagogical implications of designing course materials that are specifically geared towards Australian students, both in terms of their content and language, and making them accessible on a global scale? At present, OCW does not require any extra labour, because it essentially 'dumps' existing educational content into an online repository without 'gates'. If the ideal, however, is to provide a tertiary preparation program that genuinely creates more access to higher education for potential students all over the world, then would its content need to be adapted to reflect global issues, or 'trans-nationalised'? Furthermore, would its curriculum and pedagogy need to take greater account of the economic, social, and cultural diversity of individuals in this global environment? More specifically, would it need to be translated into different languages? Who would foot the bill for this and provide the economic support for access by the economically underprivileged? Open source software, which forms the basis on which the TPP will go 'global', potentially allows for a high degree of flexibility, adaptation, and manipulation of content, but exploiting this to the fullest would require a significant degree of cross-institutional and transnational cooperation, which is potentially in conflict with the institutional 'market advantage' orientation outlined above. Overall then, this paper argues that OCW has strong potential as an enabler to achieve the universal right to education, but it would require a firm commitment at various levels of educational governance for this potential to be realised.

OpenCourseWare: From globalisation to glocalisation?

OCW is part of a wider movement, and has grown out of Open Source Software development. Focusing on this movement in higher education, Moore (2002) distinguishes between two

categories of open-source development: “(1) open-source knowledge-ware development (the tools); and (2) open-source courseware development (the content)” (p. 44). Although it is necessary to make this distinction, and we focus here mostly on OCW, the two share important philosophical underpinnings. As Long (as cited in Moore, 2002) notes, “OCW is often viewed as the educational equivalent to the open-source software movement” (p. 46). In his book *The Cathedral and the Bazaar*, Raymond (1999) defines open-source software as “the process of systematically harnessing open development and decentralised peer review to lower costs and improve software quality” (p. 1). The underlying philosophy here can be summed up by what Raymond calls ‘Linus’s Law’ (after Linux open software founder Linus Torvalds): “Given enough eyeballs, all bugs are shallow” (Raymond, 1999, p. 41). In other words, ‘Linus’s Law’ assumes a self-correcting mechanism, in the form of ‘mass peer review’, at the heart of the open source philosophy, which operates without a clearly defined structure in place. Raymond likens the way this operates in practice to a bazaar that “behaves in many respects like a free market or an ecology, a collection of selfish agents attempting to maximise utility which in the process produces a self-correcting spontaneous order more elaborate and efficient than any amount of central planning could have achieved” (1999, p. 64). In this view, the cathedral represents the exact opposite, characterised as it is by central planning and hierarchical governance structures. Following this analogy, universities clearly conform to the cathedral model. How then does OCW fit into current university structures? Can it fit? Moreover, would it fit?

According to Moore (2002), “in aiming for an ideal of open scholarship and free access to course materials and resources online, OCW formalizes the historic process of collegial interaction and review for a new age” (p. 46). The emphasis is thus on free access to course materials, which would then lead to improvement of those materials through an expanded process of peer review. Newmarch (2001) likens this to research practice in universities and identifies a major contradiction: “a scientist does not advance the cause of human knowledge by suppressing their results and they do not gain peer recognition by remaining secret” (§ 18). Teaching and the development of course materials, however, have not been subject to the same level of peer scrutiny and assessment. Newmarch (2001) argues that in an OCW environment, “peer assessment methods can be applied to courseware in the same way that it is applied to research” (§ 20). Universities, however, tend to be nervous about ‘Intellectual Property,’ which is the main reason why course ware tends to be password protected. OCW challenges this practice and Moore (2002) outlines three major benefits for universities when they adopt OCW:

1. Doing so results in products that supplement and compete in healthy ways with proprietary products, either in the learning management systems area (knowledge ware) or in the publishing world (course ware).
2. Working in these environments encourages the use of standards so that users, whether institutions needing knowledge or individual faculty needing courseware, can adapt products to particular needs.
3. Participation also creates and nurtures expertise in knowledgeware and courseware development in the academy, completing commercial efforts and providing alternative models and materials. (p. 46)

These benefits apply in particular to individual institutions, and are for the most part concerned with benefits for a particular institution. Within this somewhat narrow focus, OCW development provides for example for “the disaggregation of labor and the inclusion of new peers in the

development and review process” (Moore, 2002, p. 50), for instance through collaboration between faculty across many institutions in the development of curriculum materials for the Web. Ideally, this leads to the development of institutional reputations for high quality course ware. According to Oblinger (2001), high quality content is the main driver for ‘repeat customers,’ and to retain customers and to keep them coming back for more, “e-business sites strive to become ‘sticky’” (p. 22).

This appears to be one of the main drivers for USQ to join an OCW consortium, alongside more idealistic objectives. USQ is one of more than 100 higher education institutions that have joined together to share their high quality learning materials as the OpenCourseWare consortium (see www.ocwconsortium.org). The consortium aims to empower people throughout the world through provision of free access to educational materials. Many language groups are represented by member institutions, thus enabling the provision of learning opportunities in a wide range of different languages to a global audience. As membership requires each institution to provide a minimum of 10 courses of instruction, the range of represented discipline areas is considerable. As a consequence, the consortium has the potential to reach and educate a substantial, worldwide population of potential students, limited only by the individual’s access to ICT resources.

A recent media release announcing USQ’s plans opens with these words: “The University of Southern Queensland (USQ) will contribute to the alleviation of poverty through the signing of an historic partnership agreement with the Asia Pacific Global Development Learning Network (GDLN)” (University of Southern Queensland, 2007). Not until the final sentences does this media release mention the potential commercial benefits to the university: “In addition to the altruistic motives, the University is also excited about the opportunity the agreement *creates in relation to student recruitment*” (emphasis added). Such student recruitment would apply both in a direct sense of potential students sampling the courseware, and then ‘signing-up’ for it, and in a more long-term sense of reputation building for the university, which would then result in an increase in fee-paying students in a global market. It is interesting in this respect to consider the example of MIT, which in 2001 was the first university (a private institution) to post the content of some 2000 classes on the Web. “Here was the pinnacle of technology and science education ready to give it all away. Not the degrees, which now cost about [US] \$41,000 a year, but the content. No registration required” (Diamond, 2003, ¶ 3). MIT’s initial nervousness about doing this, including within its own ranks, was based on a simple error: “confusing courseware with courses. But a course is a totality that includes courseware among many other factors” (Newmarch, 2001, ¶ 30), such as feedback on assessment, structured time-tabling, interpersonal communication, and, of course, conferring of a qualification. Universities essentially sell the latter, and this is not likely to lose its value. “OCW is not meant to replace degree-granting higher education or for-credit courses. Rather, the goal is to provide the content that supports an education” (Kirkpatrick, 2006, p. 53). For Newmarch (2001) the central point is: once costs are met, why not just give it away?” Why not, indeed!

While it is clear that the main impetus for OCW from an institutional perspective is a profit motive (despite rhetoric to the contrary), we argue here that this is not necessarily a problem if the by-product of that motive is wider access to education. In relation to MIT’s logic, Ishii and Lutterbeck (2001) argue, for example, that, “more open access to source code or course material will generally lead to an increase in knowledge, which in turn will lead to increased innovation in all fields, and stimulate the economy, which ultimately will benefit MIT” (¶ 32). Apart from such institutional benefits, OCW has the potential to provide access to course materials to large numbers of people globally, especially if an increasing number of universities join OCW

consortiums. This raises two important issues. Firstly, there is a global issue of access to technology, which has become known as the ‘digital divide,’ and we address this in the next section. Secondly, there is a concern about what has been called ‘cyber-imperialism’ (Rusciano, 2001). In other words, despite the increasing numbers of people who do have access to the Web, a key issue is “whether all citizens and all nations will actively participate in building the information superhighway” (Ebo, 2001, p. 5). Content creation (including educational content) on the Web is currently heavily dominated by the developed and English-speaking world. Concerns about cultural imperialism have a considerable history. In 1983, Mattelart argued, for example, that “global universities produce the internationalisation of cultural commodities, characterised by an unequal exchange favouring industrialised over nonindustrialised nations” (cited in Kraidy, 2001, p. 29). Kraidy (2001) argues for an alternative terminology, pointing out that “with its connotations of standardisation, homogenisation, and universalism, the term ‘globalisation’ falls short of rendering the complexity of international flows and exchanges of culture, information, capital and people” (p. 32-33). Instead, he offers the term “glocalisation”, which recognises “a global outlook adapted to local conditions” (p. 33). This is highly relevant for our purposes here, as OCW by definition allows for adaptation to local conditions. So, while the content and course structures are, in our case, produced in Australia, free access means that there is nothing that prevents someone in Nigeria from adapting these materials for their own purposes, and perhaps even translating them. Where Rusciano (2001) argues that cultural imperialism is a by-product of the market, the potential by-product of OCW (at least to some degree) is that it can be localised and adapted to local needs.

As noted above, however, such localization of open course ware depends on access to adequate technology, which is still more ideal than reality. Recent initiatives, however, such as the New Mexico Laptop Learning Initiative and One Laptop per Child provide some promise in this respect. Both these initiatives are broadly designed to overcome digital divide issues, and both are targeted at disadvantaged groups.

The Mexico Laptop Learning Initiative operates on a state and national level, and is “not only a response to the impact of technology in curriculum . . . it is a response to global competitiveness” (Rutledge, Duran & Carroll-Miranda, 2007, p. 340). In other words, it is a tangible response to the recognition by the United States of America that “countries such as China and India are producing large pools of high-skilled and low-wage workers” (Rutledge et al., 2007, p.341). So despite its somewhat narrow focus on national economic development, the by-product (similar to our argument about OCW) can be positive in that it helps to provide access to learning tools for those who were previously on the negative side of the digital divide. By contrast, the One Laptop per Child initiative has a more global vision, seeking to provide as many children as possible with XO laptops that are specially designed to be used in remote regions of the world. According to its vision (see www.laptop.org), One Laptop per Child is not, at heart, a technology program, nor is the XO a product in any conventional sense of the word. One Laptop Per Child is a non-profit organization providing a means to an end – one that sees children in even the most remote regions of the globe being given the opportunity to tap into their own potential, to be exposed to a whole world of ideas, and to contribute to a more productive and saner world community.

Other initiatives like these are already under way, and no doubt, there will be more in the future, whether based on commercial or altruistic motives. OCW fits well with such initiatives and can be seen as the next step in making education (in terms of content, if not accreditation) globally accessible.

While we have established that OCW can potentially be adapted to local needs, it is equally important to recognise that courseware is not produced in a context vacuum. Rather, it is typically produced in a specific national and cultural context and is primarily aimed at addressing local needs. The TPP at USQ is a good example, because it is designed to provide access to undergraduate programs primarily for Australian students and preparation for lifelong learning in a contemporary Australian context. The TPP was originally developed to provide for mature aged persons returning to study following an extended absence from formal schooling. The program targets Australians from under-represented backgrounds, many of whom had lacked previous opportunities to access tertiary studies. The curriculum and pedagogy of the program are designed to deliberately cater to the demographics of this specific student cohort. For example, the development of essay writing skills is constructed around the themes of sustainable development and welfare reform, which are directly relevant to many Australian citizens. Welfare reform in particular is of direct relevance to the social economic status of many of the enrolled students. Other aspects of the program, such as career development and study management, have a distinct Western cultural orientation and are based on an individualistic approach to manage one's life. The principal purpose for the existence of the program is to prepare Australian students to succeed with undergraduate studies at Australian higher education institutions; and therefore it has currently not taken into consideration the cultural or linguistic diversity of a global online student population.

An essential element for success in the OCW context is access to information and communication technologies (ICTs), and the ability to use the technology. Access to technology, however, is a major issue for the student population of the TPP, as about a quarter of them are incarcerated, and many more are affected by geographical isolation and lack prior formal education. In the next section, we first focus on USQ's TPP program overall, because its courses are among the first to be offered in the OCW model in Australia.

USQ's Tertiary Preparation Program (TPP): Widening access

The TPP has developed from strong philosophical beliefs about the 'right to education'. The program was initially developed in the late 1980s as a fee-paying program in response to identified demand. At about the same time, the then Australian Federal Labor government was developing a strong social justice agenda for education (Commonwealth of Australia 1987, 1988), which reaffirmed the Australian Government's policy of improving access to higher education for all Australians as a means of realising that nation's human resource potential. These policy statements, known as the White and Green papers, also argued that significant barriers existed which hindered the participation of many groups of persons from participating in higher education and that specific strategies needed to be implemented to change the balance of student participation in higher education to reflect more closely the structure and composition of Australian society as a whole. This agenda, which became fully articulated in a policy and action framework entitled *A Fair Chance for All: Higher education that's within everyone's reach* (Commonwealth of Australia, 1990), subsequently became the driving force behind the growth and development of the TPP. The program responded to this challenge by drawing upon seed funding for the provision of 'access and equity' initiatives and developing a curriculum and pedagogy which respected and valued the development of the student as an individual, regardless of social class or cultural background.

Initially, the Program, through an 'open access' policy targeted those groups of Australians identified by the Government as under-represented in Australian higher education:

- Aboriginal and Torres Strait Islander people
- Women in non-traditional areas
- People from non-English speaking backgrounds
- People with disabilities
- Rural and isolated students
- People from socio-economically disadvantaged backgrounds

However, in recognition that many applicants did not neatly fit the identified categories, but were clearly disadvantaged in their ability to access higher education, the program broadened its criteria to ensure the fee-free provision of the program to all who may be in need of entry assistance. USQ perceived an advantage in this ‘open’ approach to recruitment because it not only overcame a reliance on traditional entry mechanisms and funding sources, it simultaneously enhanced the profile of the institution as one that was accessible to the entire Australian community. As a result of the adoption of a philosophy grounded in these social justice policies and principles, and the unique delivery of the program by distance education, the TPP has become one of the largest alternative entry schemes in Australia, attracting students from widely diverse backgrounds and demographic circumstances.

This student diversity has driven the development of the curriculum and pedagogy of the program. In an inclusive manner, the TPP places the student at the centre of the learning process, guiding students to manage and take responsibility for their own learning, and assisting them to put in place personal goals, action plans, and reflective strategies, while valuing their prior educational and life experiences. This supports students to deal constructively with their own life and learning situation, and helps them to identify the individual problems they may be encountering and to formulate solutions. As such, the TPP is well placed to meet the ‘right to education’ ideals of Article 26 from an Australian perspective. Now that the program has gone global with the use of open source software, however, many of the access and equity considerations addressed for the social demographics of an Australian population, need to be reconsidered in an even more diverse and socially unjust global environment. In addition, there are important pedagogical issues to consider, as OCW simply provides access to courseware, rather than courses. This places the onus on courseware to provide optimum opportunities for relevant learning in a fast changing global environment, which in turn raises the question of whether courseware designed in a specific context is potentially transferable to other contexts.

Lifelong learning and changing societal needs

The current TPP courseware design is thoroughly based in an Australian context, and is designed to meet the needs of a specific cohort of students. During the past 30 years, there has been rapid, profound, and continuing changes in the types of workplace knowledge and skills demanded by Australian industries, and in the means by which people can acquire the needed knowledge and skills. These changes have necessitated a continual updating of such knowledge and skills in order for people to remain or become productive members of Australian society. For those who want to gain employment or remain in employment, the ongoing changes of the means by which knowledge and skills can be acquired, necessitates a continuing process of ‘learning how to learn’ in contemporary Australian society. ‘Learning how to learn’ in contemporary Australian society involves learning how to make effective use of modern information and communication technologies (ICTs), as these technologies are now the major means by which up-to-date information relating to employment is made available to the general public.

In order to achieve and maintain a productive role in contemporary Australian society, one needs to use modern ICTs as a major means of engaging in productive lifelong learning. The relevance of lifelong learning to individuals' career management and vocational education throughout their employable lifetime, and its relevance to society, is emphasised in the 2005 Ministerial Council of Education, Employment, Training and Youth Affairs (MCEETYA) Joint Statement on Education and Training in the Information Economy, in the following words:

A workforce with access to individualised and flexible quality training through new technologies will address Australia's need for competent workers who learn throughout life. (MCEETYA, 2005, ¶ 2)

Kearns (2004) notes that Australian jurisdictions are progressing towards a national commitment to build Australia as an inclusive learning society, while the general concept of the learning society is encapsulated in Jarvis's (2001) description of contemporary Western societies as 'knowledge societies' in 'the age of learning'. Kearns described a learning society as one where learning is valued and expressed in a myriad of forms and contexts. In such a society, learning is intrinsic to social, cultural, civic, and economic activity. A knowledge society, by its nature, is a learning society where innovation is continuous and embedded in the culture.

One interpretation of a learning society is a society in which a learning approach to life is valued and practised, and in which people draw on a wide range of resources to enable them to support their lifestyle practices (Edwards, 1997). An alternative interpretation is that the learning society can be regarded as a 'learning market' of opportunities that are available to individuals to update their skills and competencies in an economically competitive market (Edwards, 1997). The emphasis placed by MCEETYA (2005) on the importance of individuals' lifelong learning in the development and maintenance of an Australian workforce whose skills remain relevant in "a world of continuous technological change where knowledge is becoming a commodity" (¶ 2) is consistent with an interpretation of the learning society as a learning market. In referring to the capacity of contemporary ICTs to enable the delivery of education and training that matches individuals' interests, potentials, and life stages, MCEETYA advocates the "intelligent use of information and communications technology" to ensure that "all learners have the necessary knowledge and skills for work and life in the twenty-first century" (¶ 10).

Information literacy, access to lifelong learning, and the digital divide

Two types of skills that people need in order to have effective access to contemporary ICT are identified by Mossberger Tolbert and Stansbury (2003) as skills of 'technical competence' and skills of 'information literacy.' The term 'technical competence' as used here refers to the skills needed to operate the hardware and software of ICT, including the skills of using networked computer systems to access and share information. Collectively, these skills have been referred to as 'computer literacy' (Warschauer, 2003). Warschauer points out that people need to have developed a range of 'literacies' that enable them to use the various physical, digital, and human resources involved in ICT. By way of an example of such literacies, Warschauer refers to computer literacy as the literacy that enables a person to decide how to use a computer to access particular kinds of information from Internet sources. Breivik (1992a) and Mossberger and colleagues (2003) draw attention to another type of literacy, that is information literacy, which people need to acquire in order to be able to use contemporary ICT effectively for decision-making and personal education.

Information literacy has been described in general terms by Breivik (1992b) as one's ability to locate, evaluate, and use information. Breivik argued that information literacy is a necessary condition for resource-based learning, an approach to learning that she regarded as essential for people to adopt in order to be able to cope with the demands of a changing social and economic environment. Mossberger and colleagues (2003) define information literacy in the context of one's ability to effectively access ICT as "the ability to recognise when information can solve a problem or fill a need and to effectively employ information resources" (p. 39). This goes well beyond merely accessing information, in that it focuses attention on a person's ability to strategically employ that information for specific purposes. While access to information is relatively easy to provide, the strategic use of that information requires particular skills that need to be taught, which is much more difficult to achieve in an OCW environment. As Pence (1992) has pointed out, resource-based learning, which can be seen as characterising OCW, also requires a supporting learning community of educators and administrators to create an environment in which learners can develop information literacy. Thus, the digital divide as a measure of access may be too limited, since access to information alone does not guarantee the acquisition of information literacy skills. Indeed, being literate in a contemporary global context "implies having the ability to decode information from all types of media" (Sankey & Nooriafshar, 2005, p.155), and then repurposing it to suit a particular context.

Claims that a digital divide exists in many contemporary societies, and that it results in the social and economic marginalisation of under-classes in those societies, have been extensively debated in the literature in recent years (Holloway, 2005; Lindsay, 2005; Mossberger et. al., 2003; Norris, 2001; Pakulski, 2004; Selwyn, 2005). Mossberger and colleagues (2003, p.11) characterise the digital divide as the existence of patterns of unequal access to information technology on the basis of membership of a particular group in society defined by such characteristics as low socioeconomic status or geographic location. The conclusions reached by Warschauer (2003), and by many others on the topic of the digital divide (e.g., Norris, 2001), indicate that a lack of access to contemporary ICTs tends to create or reinforce the social and economic marginalisation of those people who are on the losing side of the divide.

Initiatives mentioned earlier, such as the Mexico Laptop Learning Initiative and the One Laptop Per Child initiative, go some way in widening access to information, and OCW can be seen as an extension of that process, thereby narrowing the divide in terms of access on a basic level. Discussions on this level fit quite comfortably with constructivist models of learning (Laurillard, 2002), where "knowledge is not some 'commodity', 'good' or 'thing' to be handed over, but is constructed by students themselves" (Ishii & Lutterbeck, 2001, ¶ 6). Some refer to 'user-led education' (Bruns, Cobcroft, Smith, & Towers, 2007) in this respect, which is seen as fundamentally changing the role of the 'teacher' from provider to mentor and facilitator (Kehrwald, 2005). In the case of OCW, the 'teacher' functions as the designer of the content, and thus as a facilitator. To 'facilitate' adequately in a way that suits a wide variety of learning contexts across the globe, however, requires extremely careful course design.

Siragusa (2006) has developed a model in which he presents 24 pedagogical dimensions for effective web-based learning environments. Many of these dimensions, however, are based on the assumption of a traditional cohort of students, and therefore do not translate easily to a global OCW context. For example, one of Siragusa's dimensions refers to the importance of recognising students' characteristics and then tailoring the design to their needs. But what if we do not know

the students' characteristics, as is the case in a global OCW context? Similarly, Siragusa (2006, ¶ 8) argues that "the online materials need to be relevant and assist with stimulating student interest and motivation", but again, ascertaining relevance is not possible if the context in which the material is accessed is not known. One characteristic we may assume is that many learners who access OCW will be novice learners, at least when it comes to academic materials. Kirschner and colleagues (cited in Clarebout & Elen, 2008) argue that "only when learners have sufficient prior knowledge to provide internal guidance, can environments with minimal guidance be effective" (p.94). Clarebout and Elen's (2008) recent study on open learning environments reveals that this is a likely reason why "students rarely or often inadequately use instructional interventions-opportunities- in learning environments" (p. 81). Again, while the TPP courses currently offered as OCW address some of these issues, they do so primarily for an audience of mostly Australian learners who have no prior higher education experience. The assumptions made about that audience by courseware designers may not necessarily hold for a more global audience.

Conclusion: The potential role of OCW

The provision by educational institutions of OCW has the potential to play an important role in assisting people to become (or to remain) socially included, productive members of wider society, by providing them with resources they need to participate in lifelong learning. Through mechanisms such as the OpenCourseWare Consortium, education programs, such as the TPP, could potentially help to provide access to the 'right to education' on a global scale, but to action this effectively and to champion the cause requires much more than the dumping of existing Australian curriculum into an open source environment.

Australia has frequently been described as 'the lucky country' (Horne, 1964). Although a wide range of complex social problems, such as poverty, racism and cultural tensions, are as evident in Australia as in other parts of the world, the scale of these problems is relatively manageable. Australia is a wealthy, highly democratic and relatively classless society. As a result of these unique advantages, Australia is well placed to promote an egalitarian and multicultural society strongly influenced by notions of a fair and just treatment for all. Given this background, Australia has a strong tradition of enabling access programs, such as the TPP, that are based on an underlying philosophy that aligns with 'the right to education,' and which are pedagogically designed for students without prior experience in tertiary education environments. This provides a strong foundation from which to develop wider access to education on a global scale in an OCW environment, and in conjunction with other initiatives that provide access to technology. OCW is currently still in its infancy, and mostly entails making pre-existing content globally accessible. To reach its full potential in providing 'real' access for its users, however, the next stage of development should be focused on pedagogically sound design that is open enough to be easily adaptable to local needs. Ultimately, this would require a strong institutional commitment and recognition of the potential benefits of OCW, regardless of whether the underlying reasons for this commitment come from a marketing perspective or from a desire to widen access to education.

References

- Breivik, P. S. (1992b). Education for the information age. In T. Farmer & F. Mech (Eds.), *Information Literacy: Developing students as independent learners* (pp. 5-14). San Francisco: Jossey-Bass.
- Breivik, P. S. (1992a). Information Literacy: What's it all about. Paper presented at the 1992 *Information Literacy Conference*, Adelaide College of TAFE, Adelaide, SA.
- Bruns, A., Cobcroft, R., Smith, J., & Towers, S. (2007). Mobile learning technologies and the move towards 'user-led education'. In G. Goggin & L. Hjorth (Eds.), *Mobile Media 2007: Proceedings of an international conference on social and cultural aspects of mobile phones, media and wireless technologies* (pp. 326-334). Sydney: University of Sydney.
- Clarebout, G., & Elen, J. (2008). Advice on tool use in open learning environments. *Journal of Educational Multimedia and Hypermedia*, 17(1), 81-97.
- Commonwealth of Australia. (1987). *Higher Education: A policy discussion paper*. Canberra, ACT: Australian Government Publishing Service.
- Commonwealth of Australia. (1988). *Higher Education: A policy statement*. Canberra, ACT: Australian Government Publishing Service.
- Commonwealth of Australia (1990). *A Fair Chance for All: Higher education that's within everyone's reach*. Canberra, ACT: Australian Government Publishing Service.
- Diamond, D. (2003). MIT everywhere. *Wired*, 11(9). Retrieved 17 April, 2007, from: http://www.wired.com/wired/archive/11.09/mit_pr.html
- Ebo, B. (2001). Cyberglobalisation: Superhighway or superhypeway? In B. Ebo (Ed.), *Cyberimperialism? Global relations in the new electronic frontier* (pp.1-6). Westport, CT: Praeger.
- Edwards, R. (1997). *Changing Places? Flexibility, lifelong learning and a learning society*. New York: Routledge.
- Holloway, D. (2005). The digital divide in Sydney. *Information, Communication & Society*, 8(2), 168-194.
- Horne, D. (1964). *The Lucky Country: Australia in the sixties*. Adelaide: Penguin.
- Ishii, K., & Lutterbeck, B. (2001). Unexploited Resources of Online Education for Democracy: Why the future should belong to OpenCourseWare. *First Monday*, 6(11). Retrieved 26 September, 2007, from: http://firstmonday.org/issues/issue6_11/ishii/index.html
- Jarvis, P. (Ed.) (2001). *The age of Learning: Education and the knowledge society*. London: Kogan Page.

- Kearns, P. (2004). Towards a learning revolution in Australia. Canberra, ACT: Adult Learning Australia.
- Kehrwald, B. (2005). Learner Support in Networked Learning Communities: Opportunities and Challenges. In J. B. Son & S. O'Neill (Eds.), *Enhancing Learning and Teaching: Pedagogy, Technology and Language* (pp.133-148). Flaxton: Post Pressed.
- Kirkpatrick, K. L. (2006, November/December). OpenCourseWare: An "MIT Thing"? *Searcher*, 53-58.
- Kraidy, M. M. (2001). From Imperialism to Glocalisation: A theoretical framework for the information age. In B. Ebo (Ed.), *Cyberimperialism? Global relations in the new electronic frontier* (pp.27-42). Westport, CT.: Praeger.
- Laurillard, D. (2002). *Rethinking University Teaching: A conversational framework for the effective use of learning technologies* (2nd Ed.). London & New York: RoutledgeFalmer.
- Lindsay, V. (2005). Employability, services for unemployed job seekers and the digital divide. *Urban Studies*, 42(2), 325-340.
- MCEETYA (2005). *Ministerial Council of Education, Employment, Training, and Youth Affairs' joint statement on education and training in the information economy*. Retrieved 29 April, 2005, from:
http://www.dest.gov.au/portfolio_department/ministers_websites/documents/js_pdf
- Moore, A. H. (2002, Sept./Oct.). Open-source learning. *Educause Review*, 42-51.
- Mossberger, K., Tolbert, C. J., & Stansbury, M. (2003). *Virtual Reality: Beyond the digital divide*. Washington, DC.: Georgetown University Press.
- Newmarch, J. (2001). Lessons from Open Source: Intellectual property and courseware. *First Monday*, 6(6). Retrieved 17 April, 2007, from:
http://firstmonday.org/issues/issue6_6/newmarch/index.html
- Norris, P. (2001). Digital divide?: Civic engagement, information poverty, and the Internet worldwide. New York: Cambridge University Press.
- Oblinger, D. (2001). Will e-business shape the future of open and distance learning? *Open Learning: The Journal of Open and Distance Learning*, 16(1), 9-25.
- One Laptop per Child (n.d.). Standing still is a reliable recipe for going backward. Retrieved 14 November, 2007, from: <http://www.laptop.or/vision/mission/>
- Pakulski, J. (2004). *Globalising Inequalities: New patterns of social privilege & disadvantage*. Sydney: Allen & Unwin.
- Pence, J. L. (1992). Transforming college culture through resource-based learning. In T. Farmer & F. Mech (Eds.), *Information Literacy: developing students as independent learners* (pp. 113-122). San Francisco: Jossey-Bass.

- Raymond, E. S. (1999). *The Cathedral and the Bazaar: Musings on Linux and open source by an accidental revolutionary*. Sebastopol, CA.: O'Reilly.
- Rusciano, F. L. (2001). The three faces of cyber imperialism. In B. Ebo (Ed.), *Cyberimperialism? Global relations in the new electronic frontier* (pp.9-25). Westport, CT.: Praeger.
- Rutledge, D., Duran, J., & Carroll-Miranda, J. (2007). Three years of the New Mexico Laptop Learning Initiative (NMLLI): Stumbling toward innovation. *Association for the Advancement of Computing in Education Journal*, 15(4), 339-366.
- Sankey, M. & Nooriafshar, M. (2005). Multiple Representations in Multimedia and E-Learning Materials: An issue of literacy. In J. B.Son & S. O'Neill (Eds.), *Enhancing Learning and Teaching: Pedagogy, technology and language* (pp. 149-171). Flaxton, QSL.: Post Pressed.
- Selwyn, N. (2005). The social processes of learning to use a computer. *Social Science Computer Review*, 23(1), 122-136.
- Siragusa, L. (2006). Quality E-learning: Designing pedagogically effective web-based environments for enhancing student online learning in higher education. Proceedings of the 21st Annual Western Australian Institute for Educational Research Forum. Edith Cowan University. Retrieved 8 November, 2007, from <http://www.waier.org.au/forums/2006/siragusa/>
- United Nations (n.d.). *UN Universal Declaration of Human Rights*. Retrieved January, 25 2007, from: <http://www.hrweb.org/legal/udhr.html>
- University of Southern Queensland. (2007). USQ helps developing nations through e-learning (Media release). Retrieved May 3, 2007, from: <http://www.usq.edu.au/newsevents/news/gdlnsigning.htm>
- Warschauer, M. (2003). *Technology and Social Inclusion: Rethinking the digital divide*. Cambridge, MA.: MIT Press.

